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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,155	03/27/2006	Takao Koyama	NNA-243-B	7757
48980 7590 03/18/2009 YOUNG & BASILE, P.C. 3001 WEST BIG BEAVER ROAD SUITE 624 TROY, MI 48084				
EXAMINER PANG, ROGER L				
ART UNIT 3655		PAPER NUMBER		
NOTIFICATION DATE 03/18/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@youngbasile.com
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Office Action Summary

Application No.

10/574,155

Applicant(s)

KOYAMA ET AL.

Examiner

Roger L. Pang

Art Unit

3655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-9, 15-18 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-3, 5, 6, 15-18 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-9 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The following action is in response to the amendment filed for application 10/574,155 on February 17, 2009.

Election/Restrictions

Claims 10-20 (now 15-18 and 20) are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 25, 2008.

Amended claims 1-3 and 5-6 have also been withdrawn from consideration, as newly amended claim 1 does not read upon the elected species. The presence of a second sun gear is not in the elected species (Fig. 2, elected on September 25, 2008). Also, in claim 1, on lines 17-18, it is unclear how a sun gear can be engaged with a pinion carrier (it is suggested that applicant amend the claim to state that the sun is engaged with the pinion itself).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7-9 and 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to claim 7, the use of the term "High/Forward" clutch appears to be inaccurate. On page 5 and Figs. 1 and 2, the clutch is referred to as the "High/Reverse Clutch." During the non-final rejection, the correction of claim 5 should have actually been on the "high/forward" limitation and not the correct "high/reverse."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-9, 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta as applied to claim 5 above, and further in view of Armstrong '556. With regard to claim 7, Ohta teaches an automatic transmission comprising: a planetary gear unit 20 coupled to a transmission mechanism 6, wherein a drive train pathway of the automatic transmission includes the transmission mechanism and the planetary gear unit; and a plurality of engagement elements 51/52/54/55 that engage to couple planetary gear elements of the planetary gear unit, wherein the plurality of engagement elements are selectively engaged to provide each of a set of selectable gears, wherein the set of selectable gears includes: a low-speed forward gear (d), a high-speed forward gear (f), and a reverse gear (j); a transmission casing 11; an output shaft (Fig. 3); wherein the planetary gear unit is a single pinion planetary gear unit including a sun gear 21, a pinion carrier 27, and a ring gear 25 as rotatory elements, wherein the sun gear is coupled to the input shaft; wherein the plurality of engagement elements includes a reverse brake 55, a forward clutch 51, a low brake 54 and a high/reverse clutch 52, wherein the pinion carrier 27 is selectively coupled to the transmission casing by engaging the reverse brake, and is selectively coupled to the output shaft by engaging the forward clutch, wherein the ring gear 25 is selectively coupled to the transmission casing by engaging the low brake, and is selectively coupled to the output shaft by engaging the high/reverse clutch. Ohta lacks the lacks the specific

teaching wherein the single pinion planetary gear unit and the reverse brake are positioned on a first common axis extending radially relative to the input shaft, and wherein the low brake, the high/reverse clutch, and the forward clutch are positioned on a second common axis adjacent to the first common axis. Armstrong teaches of a transmission, wherein the clutches and brakes can be moved to different axial and radial locations within the transmission housing while maintaining the exact same function (Figs. 2 and 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ohta to employ the single pinion planetary gear unit and the reverse brake are positioned on a first common axis, wherein the low brake, the high/reverse clutch, and the forward clutch are positioned on a second common axis adjacent to the first common axis in view of Armstrong in order to reduce lateral space of the transmission, and also since a particularly known technique was recognized as part of the ordinary capabilities of one skilled in the art. With regard to claim 8, Ohta in view of Armstrong teaches the transmission, wherein the second common axis is parallel to the first common axis (based on the manipulation of the clutch locations). With regard to claim 9, Ohta teaches the transmission wherein the reverse brake 55 is located axially closer to the input shaft than the low brake, high/reverse and forward clutches, but lacks the teaching wherein the reverse brake includes a band-braking system. Armstrong teaches a transmission with both a multi-plate brake 128 and a band brake 82. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ohta to employ a band brake in view of Armstrong in order to reduce the space for actuation of said brake. With regard to claim 22, Ohta teaches the transmission, wherein the transmission mechanism is a continuously variable transmission mechanism 6. With regard to claim 23, Ohta teaches the transmission, wherein the low-speed

forward gear is selected by engaging both the low brake and the forward clutch (d), wherein the high-speed forward gear is selected by engaging both the high/forward clutch and the forward clutch (f), and wherein the reverse gear is selected by engaging both the high/reverse clutch and the reverse brake (j).

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta in view of Armstrong as applied to claim 7 above, and further in view of Hiraku '658 (from IDS). With regard to claim 3, Ohta teaches the transmission comprising an engagement element 54 of a set of engagement elements that couples interspaces between rotary elements of the planetary gear elements and the transmission casing 11, but lacks the teaching of the use of two dampers. Hiraku teaches a transmission using two dampers 27/28 within the driveline. It would have been obvious to one of ordinary skill in the art at the time of the invention modify Ohta to employ a first damper in the drive train pathway; and a second damper coupled to an engagement element of the set of engagement elements that couples interspaces between rotatory elements of the planetary gear elements and the transmission casing in view of Hiraku in order to absorb the shocks of transmission changes and general vibrations.

Response to Arguments

With regard to claim 1, applicant's arguments are moot on the grounds that the claim is now directed toward a non-elected species and is therefor withdrawn (along with claims 2-3, 5-6,) from consideration.

With regard to the combination of Ohta and Armstrong, applicant argues improper hindsight for motivation. Applicant also argues that mode (f) in Table 3 and Fig. 4 is not a "high-speed forward gear."

With regard to the argument of improper hindsight, Ohta teaches the same transmission structure claimed in the present application. Ohta only lacks the teachings of the specific brake and clutch locations within the transmission case. Applicant is directed to Fig. 2 of Armstrong to see brake 14A which is located to the right of planetary gear 20. In Fig. 4, the same transmission is has been modified to move brake 14A (now labeled 14C) directly above the planetary gear 20. This teaching would move reverse brake 55 directly inline with planetary gear 2B of Ohta (as claimed by the applicant). Applicant is now directed to see brake 92 and staggered clutch 104, and then to Fig. 4 where the clutch and brakes still function in the same manner, but are now inline with each other (now labeled 92C and 104C). This is the teaching of moving staggered clutches and brakes to be inline with each other, thus aligning the low brake, high/reverse clutch and forward clutch in Ohta as claimed by the applicant. As illustrated by Armstrong, moving brakes and clutches within a transmission housing is a known technique to one of ordinary skill in the art at the time of the invention that yields predictable results (in this case, a more compact transmission). Hindsight is not necessary given the teaching of the base (Ohta) and the various teachings of Armstrong.

With regard to the "high-speed forward gear," regardless of the operation of the electric machine in Ohta, the exact same clutches are actuated during mode (f) in Table 3 as the labeled "high-speed forward gear" of the present invention. Therefore, the claimed limitation is covered.

Applicant's arguments have been considered, but are not persuasive.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. The central facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses

requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L. Pang whose telephone number is 571-272-7096. The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roger L Pang/
Primary Examiner, Art Unit 3655

Roger L Pang
Primary Examiner
Art Unit 3655

March 14, 2009